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Artificial Intelligence Use and Perceived Academic Performance Among College of Business and Accountancy Students at UCLM Basis for Ethical Guidelines

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ABSTRACT

Artificial intelligence (AI) tools are increasingly incorporated into students' academic activities, creating both opportunities for learning support and concerns regarding overreliance, academic engagement, and skill development. This study described the frequency of AI tool use and the perceived effects of AI use on the academic performance of College of Business and Accountancy (CBA) students at the University of Cebu–Lapu-Lapu and Mandaue (UCLM). A quantitative descriptive research design was employed. The study involved 300 CBA students selected through convenience sampling from six academic programs. Data were collected using a researcher-developed four-point Likert-scale questionnaire covering respondent profile, AI-tool usage, perceived AI use in academic performance, and perceived impact on performance. Frequency, percentage, and weighted mean were used to summarize the responses. ChatGPT and Canva were the most frequently used tools, each obtaining a mean of 2.80, while the aggregate frequency of AI-tool use was 2.54, interpreted as Often. The overall perceived level of AI use in academic performance obtained a mean of 3.10, interpreted as Agree. Among the dimensions, school activities obtained the highest mean (3.14), followed by long-term impact (3.12), student autonomy (3.11), learning efficiency (3.11), and learning outcomes (3.04). The overall perceived impact of AI on performance obtained a mean of 3.11, also interpreted as Agree. Learning capability and efficiency and productivity both obtained 3.13, while skill development obtained 3.08. The findings also indicate concerns about overdependence, reduced engagement, and possible weakening of independent learning and critical-thinking development. The results support the development of ethical guidelines that position AI as a supplementary learning tool, require critical verification of AI-generated information, preserve active student participation, and protect academic integrity and independent skill development.

Keywords: *artificial intelligence; academic performance; AI tools; student autonomy; learning efficiency; skill development; academic integrity; ethical guidelines*

INTRODUCTION

Artificial intelligence (AI) has become increasingly visible in educational settings, where it is used to support information retrieval, writing, presentation development, personalized learning, and other academic tasks. AI-enabled systems can provide individualized assistance, immediate feedback, and adaptive learning opportunities. A systematic review of AI in science education described its potential to support teaching and learning through personalized and technology-assisted approaches (Almasri, 2024). Research on AI in higher education has also identified a rapidly developing field in which AI applications can influence learning practices, instructional processes, and educational experiences (Crompton & Burke, 2023).

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The use of AI, however, presents a dual challenge. AI may improve efficiency and access to information while also creating concerns regarding dependence, academic engagement, data privacy, bias, and academic integrity. Research on generative AI has emphasized the importance of students' AI literacy and perceived value in shaping their use intentions (Al-Abdullatif & Alsubaie, 2024). Other literature has highlighted concerns that excessive dependence on AI may weaken independent learning and deeper cognitive engagement (Klarin et al., 2024; Mallillin, 2024).

AI may also contribute to student autonomy and learning efficiency when used as a support mechanism. Students can use AI to obtain explanations, organize information, and receive immediate feedback. Studies cited in the source thesis associate AI-supported learning with self-directed learning, productivity, collaboration, and technology-assisted skill development (Guacas et al., 2023; Klarin et al., 2024). At the same time, students must evaluate the quality and accuracy of AI-generated information rather than treating AI outputs as automatically reliable.

The Philippine educational context presents additional considerations. Estrellado (2023) discussed opportunities for AI integration in Philippine education while also identifying concerns involving infrastructure, data privacy, and unequal access. These issues are relevant to higher education institutions that are developing policies for AI use while attempting to preserve academic integrity and meaningful student learning.

The present study focused on students in the College of Business and Accountancy (CBA) at the University of Cebu–Lapu-Lapu and Mandaue (UCLM). It described which AI tools students use, how frequently they use them, how they perceive AI use across academic-performance dimensions, and the perceived impact of AI on learning capability, efficiency and productivity, and skill development. The study also sought to provide an empirical basis for proposed ethical guidelines for responsible AI use among CBA students.

Specifically, the study addressed four objectives: (a) describe the respondents' demographic profile in terms of gender, age, year level, and academic program; (b) determine the frequency of use of ChatGPT, Cici, Grammarly, Canva, and chatbots; (c) determine the perceived level of AI use in school activities, student autonomy, learning outcomes, learning efficiency, and long-term impact; and (d) determine the perceived impact of AI on learning capability, efficiency and productivity, and skill development. Based on these findings, ethical guidelines for responsible AI use were formulated.

The study was informed by constructivist learning theory, the Technology Acceptance Model (TAM), and ethical theories in education. The source thesis describes constructivism as emphasizing active knowledge construction, TAM as emphasizing perceived usefulness and perceived ease of use, and deontological ethics as emphasizing adherence to principles of academic integrity. These perspectives provide a conceptual basis for considering AI as a learning-support tool whose value depends on how it is used and governed.

METHODOLOGY

Research Design

The study employed a quantitative descriptive research design. The design was used to describe the frequency and patterns of AI-tool use and students' perceptions of AI's role in academic performance, learning efficiency, and skill development. No experimental manipulation was conducted; therefore, the findings describe respondents' reported perceptions and do not establish that AI use caused changes in academic performance.

Research Setting and Respondents

The study was conducted at the University of Cebu–Lapu-Lapu and Mandaue Campus in Mandaue City, Cebu, Philippines. The respondents were CBA students enrolled in six academic programs. The final sample consisted of 300 students.

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Program	Population	Percentage	Sample
BSA	223	15.51%	47
BSBA–Financial Management	266	18.49%	55
BSBA–Human Resource Development Management	138	9.60%	29
BSBA–Marketing Management	347	24.13%	72
BSMA	441	30.67%	92
BSREM	23	1.60%	5
Total	1,438	100.00%	300

The source thesis states that Slovin's formula produced a computed sample size of 320. Following consultation with a statistician, 20 respondents were allocated for pilot testing and the remaining 300 respondents were used for the main study. Pilot-test participants were excluded from the main data collection. Convenience sampling was used for the actual respondents.

Research Instrument

Data were gathered using a researcher-developed questionnaire consisting of four sections. Section 1 collected the respondents' gender, age, year level, and course. Section 2 measured the frequency of use of ChatGPT, Cici, Grammarly, Canva, and other chatbots. Section 3 measured perceived AI use across school activities, student autonomy, learning outcomes, learning efficiency, and long-term impact. Section 4 measured perceived impact on learning capability, efficiency and productivity, and skill development.

A four-point Likert scale was used. For the agreement-based items, 3.40–4.00 was interpreted as Strongly Agree, 2.60–3.39 as Agree, 1.80–2.59 as Disagree, and 1.00–1.79 as Strongly Disagree. The source thesis also reports a 20-student dry run for assessment and refinement of the questionnaire.

Data Collection and Ethical Considerations

The researchers secured the required internal and external transmittal letters and obtained enrollment information from the Records Section for sampling purposes. Questionnaires were personally distributed to CBA students. Participation was treated confidentially. The study identified academic integrity, data privacy, potential bias, unequal access, and overreliance on AI as ethical considerations. The researchers also stated that the study underwent the university's research ethics process.

Data Analysis

Frequency and percentage were used to describe the respondents' profile and frequency of AI-tool use. Weighted means were used to summarize the respondents' perceptions of AI use and its perceived impact on academic performance. Because the study used a descriptive design and the reported analyses were descriptive, the results should be interpreted as respondents' perceptions rather than causal effects or objectively verified changes in academic achievement.

RESULTS AND DISCUSSIONS

Respondent Profile

Among the 300 respondents, 175 (58.30%) were male and 125 (41.70%) were female. The largest age group was 18 years old, with 72 respondents (24.00%). First-year students constituted the largest year-level group with 88 respondents (29.30%). By academic program, BSMA had the largest representation with 94 respondents (31.30%), followed by BSBA-HRDM with 72 (24.00%), BSBA-FM with 54 (18.00%), BSA with 44 (14.70%), BSBA-MM with 30 (10.00%), and BSREM with 6 (2.00%).

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Frequency of AI-Tool Use

AI Tool	Mean	Interpretation
ChatGPT	2.80	Often
Canva	2.80	Often
Grammarly	2.53	Often
Cici	2.31	Sometimes
Chatbot	2.26	Sometimes
Aggregate Mean	2.54	Often

ChatGPT and Canva were the most frequently used AI-related tools, each with a mean of 2.80. The aggregate mean of 2.54 was interpreted as Often, indicating that AI tools were regularly incorporated into the respondents' academic routines. The source thesis describes this pattern as reflecting the use of different tools for complementary academic tasks such as writing, research, and presentation development, consistent with Montenegro-Rueda et al. (2023).

Perceived Level of AI Use in Academic Performance

Dimension	Mean	Interpretation	Rank
School Activities	3.14	Agree	1
Long-term Impact	3.12	Agree	2
Learning Efficiency	3.11	Agree	3
Student Autonomy	3.11	Agree	4
Learning Outcomes	3.04	Agree	5
Overall	3.10	Agree	—

The overall mean of 3.10 indicates that respondents agreed that AI use contributes to their academic performance across the measured dimensions. School activities obtained the highest mean (3.14), while learning outcomes obtained the lowest (3.04).

For school activities, the highest-rated statement concerned reduced stress when AI was used as a guide in preparing assignment responses (M = 3.16). Respondents also agreed that AI facilitates group projects, oral-recitation preparation, and presentation design. At the same time, the respondents agreed that overdependence on AI may limit academic growth (M = 3.12). This pattern is consistent with literature describing both productivity benefits and risks of excessive dependence on AI (Eldon et al., 2023; Klarin et al., 2024).

For student autonomy, the highest-rated items were the ability to find useful resources independently and receive instant help or feedback, both with M = 3.12. The aggregate mean was 3.11. These findings suggest that students perceive AI as capable of supporting self-directed learning, although excessive or poorly filtered information may make learning more difficult (Klarin et al., 2024).

For learning outcomes, the highest-rated item was that AI helps clarify difficult topics or terms (M = 3.13). The aggregate mean was 3.04. Respondents also agreed with statements indicating that AI does not always guarantee improved academic performance and that reliance on AI may reduce engagement. Thus, perceived usefulness for understanding a difficult topic should not be equated with objectively higher grades or test scores.

Learning efficiency obtained an aggregate mean of 3.11. The highest-rated item was that AI helps summarize and organize information quickly (M = 3.18). Respondents also agreed that AI provides rapid access to information. However, they agreed that reliance on AI may weaken note-taking and study habits and that convenience may reduce effort. Similar concerns about responsible and balanced use have been discussed in the literature (Mallillin, 2024; Slimi, 2023).

Long-term impact obtained an aggregate mean of 3.12. Respondents most strongly agreed that AI can have a lasting effect on how students approach learning (M = 3.17). They also agreed that AI

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can provide long-term benefits through efficiency and innovation. However, respondents recognized concerns about excessive reliance and possible effects of automation on future employment. These findings are consistent with the broader discussion of AI's potential to reshape learning and competency development (Purnama et al., 2023; Wang et al., 2023).

Perceived Impact of AI on Performance

Impact Dimension	Mean	Interpretation	Rank
Learning Capability	3.13	Agree	1
Efficiency and Productivity	3.13	Agree	1
Skill Development	3.08	Agree	2
Overall	3.11	Agree	—

The overall mean of 3.11 indicates agreement that AI has a positive perceived impact on academic performance. Learning capability and efficiency and productivity both obtained a mean of 3.13, while skill development obtained 3.08.

For learning capability, clarifying difficult concepts received the highest mean (3.17), followed by the general effectiveness of AI in supporting academic studies (3.16). The lowest item concerned reliance on AI in the learning process (3.08), indicating that respondents simultaneously recognized AI's usefulness and the possibility of dependence.

For efficiency and productivity, the highest-rated items, both with a mean of 3.18, concerned minimizing errors and using AI when time is limited or tasks need to be completed quickly. The aggregate mean was 3.13. The results indicate that students particularly value AI when academic tasks require speed and organization. However, respondents also agreed that AI does not necessarily eliminate distractions and that students must maintain personal focus and self-regulation.

For skill development, writing skills received the highest mean (3.12), followed by presentation skills (3.11). The lowest-rated statement concerned the possibility that excessive reliance on AI may hinder skill development (3.04). The aggregate mean of 3.08 indicates that students perceive AI as a useful aid for developing selected academic skills while recognizing the risk that excessive reliance could weaken independent competency development.

DISCUSSION

The findings show that AI use is already integrated into the academic routines of the participating CBA students. The aggregate frequency mean of 2.54, interpreted as Often, together with the relatively high use of ChatGPT and Canva, indicates that students employ AI tools for a range of text-based, research, organizational, and visual academic activities. This is consistent with broader literature describing the increasing presence of AI in higher education and the use of generative AI for academic work (Crompton & Burke, 2023; Montenegro-Rueda et al., 2023).

Students generally perceived AI positively across school activities, autonomy, learning outcomes, learning efficiency, and long-term impact. However, the pattern of means is important. School activities obtained the highest dimension mean, whereas learning outcomes obtained the lowest. This may indicate that students experience AI more directly as a tool for completing or organizing academic tasks than as a mechanism that independently produces deeper learning outcomes. The study itself found that AI can clarify difficult concepts while not necessarily guaranteeing improved test scores or academic performance.

The results on efficiency and productivity demonstrate the practical value students place on AI. The highest ratings involved summarizing and organizing information, minimizing errors, and completing tasks under time constraints. AI can therefore function as an academic productivity aid. Nevertheless, productivity should not be equated with learning. If convenience reduces students' effort,

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participation, or development of study habits, the short-term efficiency benefit may coexist with longer-term learning concerns (Eldon et al., 2023; Mallillin, 2024).

The findings on autonomy similarly show a balance between support and dependence. Students agreed that AI helps them independently access resources and obtain immediate feedback, but they also acknowledged that excessive information and reliance can make learning more difficult. This reinforces the importance of AI literacy: students need the ability to question, verify, contextualize, and appropriately use AI-generated information rather than merely accept it.

The skill-development findings are particularly relevant to the proposed ethical guidelines. Students reported perceived benefits in writing and presentation skills, but they also recognized that excessive reliance may hinder skill development. AI should therefore be positioned as a scaffold or supplementary resource rather than a substitute for the student's own cognitive work. This position is consistent with literature emphasizing responsible integration, ethical awareness, collaboration, and continued development of human competencies (Guacas et al., 2023; Purnama et al., 2023).

Importantly, this study measured perceived academic performance and perceived impact using self-report ratings. The findings should not be interpreted as evidence that AI objectively increased students' grades or caused academic improvement. Similarly, the results do not establish that AI use caused reduced critical thinking or skill development. Rather, respondents reported both perceived benefits and perceived risks. Future research using academic records, performance assessments, experimental or longitudinal designs, and validated scales could provide stronger evidence regarding actual academic effects.

The study therefore supports an institutional approach centered on responsible use rather than unrestricted adoption or complete prohibition. Ethical guidance should clarify acceptable uses of AI, require verification of AI-generated information, preserve student authorship and accountability, encourage active participation and independent work, and address privacy and academic-integrity concerns.

CONCLUSION

AI tools are frequently used by the participating CBA students at UCLM, with ChatGPT and Canva emerging as the most frequently used tools. Students generally agreed that AI supports their academic activities, autonomy, learning outcomes, learning efficiency, and awareness of long-term effects. The overall perceived level of AI use in academic performance was 3.10, while the overall perceived impact was 3.11, both interpreted as Agree.

The results indicate that students particularly perceive AI as useful for clarifying difficult concepts, organizing information, improving efficiency, managing time, and supporting writing and presentation tasks. At the same time, students recognize risks associated with overdependence, reduced engagement, complacency, weaker study habits, and possible limitations in independent skill development.

Because the study is descriptive and based on self-reported perceptions, the findings do not establish causal effects of AI on academic performance. The principal implication is that students perceive both meaningful benefits and risks. These findings provide a local empirical basis for developing ethical guidelines that encourage responsible, balanced, transparent, and academically accountable AI use.

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Proposed Ethical Guidelines

Evidence from the Study	Ethical Risk	Proposed Guideline
AI is frequently used and is perceived to support efficiency and understanding.	Overdependence and reduced independent learning.	Use AI as a supplementary tool, not as a substitute for the student's own knowledge, reasoning, and effort.
AI facilitates task completion and academic activities.	Reduced participation in meaningful learning.	Maintain active participation in discussions, group work, practical activities, and independent study.
AI provides rapid information and explanations.	Inaccuracy, misinformation, and superficial learning.	Verify AI-generated information using reliable academic or authoritative sources before using it.
AI supports writing and presentation tasks.	Uncredited AI-generated work and weakened authorship.	Require students to remain accountable for the accuracy, originality, and integrity of submitted work and to follow applicable disclosure requirements.
AI may improve productivity when time is limited.	Complacency and reduced effort.	Use AI to support productivity while retaining active cognitive engagement and understanding.
Students recognize possible effects of long-term AI dependence.	Weakening of critical thinking and independent competencies.	Continuously develop core academic skills independently of AI and avoid using AI for tasks intended to assess unaided competence.
AI use raises privacy and fairness concerns.	Exposure of personal information and unequal access.	Do not submit confidential or sensitive information to AI systems and consider equitable access when designing AI-supported academic activities.
AI is already part of students' academic routines.	Unclear expectations for acceptable use.	Provide clear, program-level guidance on permitted, restricted, and prohibited AI uses, with faculty supervision and periodic review as AI technologies evolve.

Limitations

The study has several limitations. First, it used convenience sampling and included 300 respondents from one college within one university; therefore, the findings should not be generalized automatically to other students or institutions. Second, the measures were based on self-reported perceptions rather than verified academic records or standardized achievement tests. Third, the descriptive design does not permit causal conclusions about whether AI use changes academic performance. Fourth, the questionnaire was researcher-developed; although it underwent expert consultation and a 20-student dry run, the source thesis does not provide a numerical reliability coefficient in the main methodological text available for this article. Future research should use validated instruments, larger and more diverse samples, objective academic indicators, and longitudinal or comparative designs.

RECOMMENDATIONS

- Students should use AI as a learning aid while retaining responsibility for the content, reasoning, and originality of their academic work.
- Students should verify AI-generated information before incorporating it into assignments, reports, presentations, or research outputs.
- Faculty members should clearly communicate which AI uses are permitted, restricted, or prohibited for each academic task.

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- Academic programs should provide AI-literacy activities covering prompt use, source verification, privacy, bias, academic integrity, and responsible attribution or disclosure.
- Assessment strategies should include activities that require students to demonstrate independent reasoning, problem-solving, reflection, and application of knowledge.
- UCLM should periodically review and update AI guidelines as AI technologies, institutional policies, and academic-integrity practices evolve.
- Future researchers should examine the relationship between AI use and objectively measured academic performance using larger samples and longitudinal or comparative designs

Author Contributions

Author 1: Conceptualization, Methodology, **Author 2:** Data curation, Writing-Original draft preparation; **Author 3**: Investigation, Validation, **Author 4**: Visualization, Writing- Reviewing; **Author 5:** Supervision, Editing; **Author 6:** Investigation, Validation; **Author 7:** Writing- Reviewing, Supervision.

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Generative AI Statement

The authors used ChatGPT (Open AI) solely as a language-support tool to improve the clarity, coherence, and grammatical accuracy of the manuscript. All AI-assisted outputs were critically reviewed, revised, and validated by the authors to ensure the accuracy, integrity, and originality of the content. The authors accept full responsibility for the final version of the manuscript and its published content.

Ethical Considerations

Prior to the data gathering, ethical approval was obtained from the University of Cebu Academic Research Ethics Committee (UCAREC). The approved protocol ensured adherence to the principles of respect for persons, beneficence, justice, voluntary participation, informed consent, confidentiality, and anonymity, and compliance with the Data Privacy Act throughout the research process.

Declaration of Competing Interest

The authors declare that they have no competing financial, professional, or personal interests that could have influenced the conduct, findings, or publication of this study.

Data Availability

Data will be made available by the corresponding author on request.

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REFERENCES

Ajuwon, O. A., Animashaun, E. S., & Chiekezie, N. R. (2024). Integrating AI and technology in educational administration: Improving efficiency and educational quality. Typeset.

Copyright: ©2026 The Authors. UCLM Journal of Business, Accounting and Management

https://typeset.io/papers/integrating-ai-and-technology-in-educational-administration-1u5heng4bo1z

Al-Abdullatif, A. M., & Alsubaie, M. A. (2024). ChatGPT in learning: Assessing students' use intentions through perceived value and AI literacy. Behavioral Sciences, 14(9), 845. https://doi.org/10.3390/bs14090845

Almasri, F. (2024). Exploring the impact of artificial intelligence in teaching and learning of science: A systematic review of empirical research. Research in Science Education. https://doi.org/10.1007/s11165-024-10176-3

Crompton, H., & Burke, D. (2023). Artificial intelligence in higher education: The state of the field. International Journal of Educational Technology in Higher Education, 20(1), 22. https://doi.org/10.1186/s41239-023-00392-8

Eldon, Y., Li, A., & Jan, A. (2023). Impact of artificial intelligence (AI) in enhancing productivity and reducing stress among students. ICEB Proceedings. https://aisel.aisnet.org/iceb2023/33/

Estrellado, C. J. P. (2023). Artificial intelligence in the Philippine educational context: Circumspection and future inquiries. ResearchGate. https://www.researchgate.net/publication/370603250_Artificial_Intelligence_in_the_Philppine_Educational_Context_Circumspection_and_Future_Inquiries

Guacas, A. F., Urueña Rodríguez, J. A., Santana Trujillo, D. M., Gómez-Galán, J., & López-Meneses, E. (2023). Contemporary collaborative learning and skill development for educational growth of artificial intelligence: A systematic review. ERIC. https://eric.ed.gov/?id=EJ1394986

Harry, A., & Sayudin, S. (2023). Role of AI in education. Injury Journal. https://injurity.pusatpublikasi.id/index.php/inj/article/view/52

Klarin, J., Hoff, E., Larsson, A., & Daukantaite, D. (2024). Adolescents' use and perceived usefulness of generative AI for schoolwork: Exploring their relationships with executive functioning and academic achievement. Frontiers in Artificial Intelligence. https://doi.org/10.3389/frai.2024.1415782

Mallillin, L. D. (2024). Artificial intelligence (AI) towards students' academic performance. Innovate Journal of Education. https://doi.org/10.22159/ijoe.2024v12i4.51665

Montenegro-Rueda, M., Fernández-Cerero, J., Fernández-Batanero, J. M., & López Meneses, E. (2023). Impact of ChatGPT on education: A systematic review. Computers, 12(8), 153. https://doi.org/10.3390/computers12080153

Ravichandran, R., & Sasikala, P. (2024). Study on the impact of artificial intelligence on student learning outcomes. ResearchGate. https://www.researchgate.net/publication/383451820_Study_on_the_Impact_of_Artificial_Intelligence_on_Student_Learning_Outcomes

Salido, V. (2023). Impact of AI-powered learning tools on student understanding and academic performance. ResearchGate. https://www.researchgate.net/publication/376260972_Impact_of_AI-Powered_Learning_Tools_on_Student_Understanding_and_Academic_Performance

Shah, S. (2024, April 3). The transformative impact of artificial intelligence on student learning and academic performance. LinkedIn. https://www.linkedin.com/pulse/transformative-impact-artificial-intelligence-student-dr-seema-shah-4cbsc/

Slimi, Z. (2023). The impact of artificial intelligence on higher education: An empirical study. ERIC. https://files.eric.ed.gov/fulltext/EJ1384682.pdf

Copyright: ©2026 The Authors. UCLM Journal of Business, Accounting and Management

Teachflow.ai. (2023). Fostering student autonomy in the AI-driven classroom. https://teachflow.ai/fostering-student-autonomy-in-the-ai-driven-classroom/

The Editors of Encyclopaedia Britannica. (2024, September 13). Deontology ethics. Encyclopaedia Britannica. https://www.britannica.com/topic/categorical-imperative

Wang, S., Sun, Z., & Chen, Y. (2023). Effects of higher education institutes' artificial intelligence capability on students' self-efficacy, creativity, and learning performance. Education and Information Technologies. https://doi.org/10.1007/s10639-022-11338-4

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